

NOTES ON *CORNUS* (CORNACEAE) IN SOUTH AMERICA

The family Cornaceae is represented in South America by the genera *Cornus* L. and *Griselinia* Forster f. The latter, often segregated as Grisekiniaceae, occurs in Brazil and Chile, and in New Zealand, while the former has been known previously from Bolivia north to Colombia in the Andes. We report here, for the first time, *Cornus* in Venezuela, this being the first record of the family in Venezuela.

Macbride (1929) was first to record the genus from South America. Based on fragmentary fruiting material collected from Peru and Bolivia, he described two species, *C. peruviana* and *C. boliviana*, the former based on the collection Macbride 3439 from Cani, Depto. Huánuco, Peru, the latter based on Bang 1799 from Bolivia without exact locality indicated. His decision to separate the two collections as distinct taxa was based on his observation of the "equally two-armed" trichomes on the abaxial leaf surface of the Peruvian plant as contrasted with the "unequally branched or pronged" hairs with "one of their two 'arms' being much longer than the other" in the Bolivian material. A year later, however, Macbride (1930) changed his mind and concluded that *Cornus peruviana* was identical with an unpublished species of *Viburnum* from Peru collected by Ruiz & Pavon which he examined at B, and, accordingly, he transferred it to *Viburnum peruvianum* (J. F. Macbr.) J. F. Macbr. At the same time, he decided that the Bolivian material did not belong to *Cornus*, but, being uncertain as to its proper family position, did not assign it to any genus.

Subsequently, Standley (1935) re-examined the specimens described by Macbride and concluded that they did indeed belong to *Cornus*, and that, moreover, they were conspecific. Standley chose the epithet *peruviana* for them. In the Flora of Peru Macbride (1959) accepted Standley's conclusions and placed *C. boliviana* J. F. Macbr. in synonymy.

During an expedition to the Andes of Estado Táchira, Venezuela, near the Colombian border, the authors found a fallen branch from a tree that proved, upon later examination, to belong to the genus *Cornus*. In determining that this collection pertained to *Cornus*, and not to *Viburnum*, the criterion of leaf pubescence, as indicated by Solereder (1899) and Metcalfe & Chalk (1950),

proved critical. A comparison of the Steyermark & Liesner collection from Venezuela with other South American specimens initiated the present study of the genus.

In general, we have observed, after examination of available herbarium material, that the specimens from Venezuela and Colombia show a more appressed type of indument on the calyx, hypanthium, and lower surface of the leaf in contrast with collections from Ecuador, Peru, and Bolivia, which have a more loosely crisp, spreading, and often denser type of pubescence. However, the total number of specimens examined from South America remains inadequate for conclusions as to the variability present. The apparent differences noted between the northern and southern populations may disappear when more abundant material becomes available. For the present, therefore, we do not recognize any segregation of taxa, and conclude that the plants from Venezuela are conspecific (*sensu lato*) with those from the other parts of South America. In this connection, we are employing the name *C. peruviana* J. F. Macbr. as selected by Standley (1935) when he concluded that the Peruvian and Bolivian populations were conspecific.

Specimens examined (listed geographically from north to south). VENEZUELA. EDO. TÁCHIRA: wet forested slopes along Quebrada Agua Azul, over slate-shale substrata, south of El Reposo, 14 km SE of Delicias, 7°31'N, 72°24'W, 2,150–2,300 m, 22–23 Jul. 1979, Steyermark & Liesner 118420 (MO, VEN). COLOMBIA: Mutis 2313 (US). ECUADOR: Pastaza river, 2,000 m, Feb. 1935, Rimbach 271 (F). PERU. DEPT. HUÁNUCO: Cani, 7 mi. NE of Mito, 2,575 m, 16–26 Apr. 1923, Macbride 3439 (type of *C. peruviana*, F); DEPT. CAJAMARCA: Prov. Celendin, canyon of the Río Marañón above Balsas, 5 km below summit of the road to Celendin, 24 May 1964, Hutchison & Wright 5336 (US); DEPT. AMAZONAS: Leimebambo, 2,100 m, 23 Dec. 1962, Woytowski 7796 (MO, US); Ambay, 3,100 m, Jun. 1938, Univ. Cuzco s.n. (MO). BOLIVIA. DEPT. COCHABAMBA: Ayopaya, Sailapata, 2,800 m, Nov. 1935, Cardenas 3355 (US); Bang 1799 (type of *C. boliviana*, MO, US).

The following key indicates the main characters distinguishing *Cornus* from *Viburnum*:

1. Abaxial surface of leaves with 2-branched, unicellular, nodose trichomes incrustated with lime carbonate; flowers tetramerous; petals free, separate; ovary bilocular *Cornus*
1. Abaxial surface of leaves not as above, the

pubescence, when present, of simple, stellate, peltate, tufted, or glandular hairs; flowers pentamerous; corolla sympetalous; ovary unilocular *Viburnum*

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